Application No.:   10/668,133
Art Unit: 3689
Amendment dated: January 15th, 2010

AMENDMENTS TO THE CLAIMS

In the claims

5   1.   (currently amended)   A computer program product comprising a computer-readable medium having stored thereon instructions for causing a computer to perform a process ~~An operations, management, capacity, and services (OMCS) tool~~ for assessing business solutions comprising alternative network architectures and management processes for a telecommunications network, the

10   [[tool]] computer program product comprising instructions for:

    (a)   receiving ~~means for inputting~~ data and options for plurality of network architectures, network management processes, and service and customer management processes ~~by an analyst~~;

    (b)   ~~means for~~ engineering the plurality of network architectures based on the

15   data and options of (a);

    (c)   ~~means for~~ determining suppliers' equipment costs for said plurality of network architectures;

    (d)   ~~means for~~ engineering the network management processes and the service and customer management processes, based on the data and options of (a),

20   for managing said plurality of network architectures;

    (e)   ~~means for~~ determining suppliers' management processes costs for the network management processes and the service and customer management processes;

    (f)   ~~means for~~ validating and calibrating the data and options and the costs for

25   the plurality of network architectures, the network management processes, and the service and customer management processes;

    (g)   ~~means for~~ determining, based on the costs of the plurality of network architectures and the network management processes and the service and customer management processes, business parameters for the business

30   solutions; and

    (h)   ~~means for~~ storing [[or]] and displaying the business parameters for the business solutions for the telecommunications network.

2.   (currently amended)   The [[tool]] computer program product as described in
     claim 1, wherein the ~~means~~ instructions (a) comprise instructions for causing the
     computer to receive ~~comprises means for inputting~~ traffic data; customer data;

5   and financial and labor data.

3.   (currently amended)   The [[tool]] computer program product as described in
     claim 2, wherein the ~~means~~ instructions (a) further ~~comprising~~ comprise
     instructions for causing the computer to:

10   -   receive ~~means for inputting~~ technology options which comprise at least one
         of: time division multiplexing (TDM), asynchronous transfer mode (ATM),
         frame relay (FR), Internet protocol (IP), virtual private network (VPN), multi
         protocol label switching (MPLS), and optical Ethernet including fiber,
         synchronous optical network (SONET), resilience packet ring (RPR), and

15   dense wavelength division multiplexing (DWDM) for a network architecture
         for a business solution;
     -   receive ~~means for inputting~~ options for the network management processes
         which comprise at least one of: inside plant maintenance, outside plant
         maintenance, network engineering, network provisioning, installation,

20   testing, and repairs for managing the network architecture for the business
         solution; and
     -   receive ~~means for inputting~~ options for the service and customer
         management processes which comprise at least one of: customer relationship
         management (CRM), work order management (WOM), network inventory

25   management (NIM), service activation and provisioning (SAP), fault
         management (FM), performance management (PM), accounting and billing,
         and security management for managing the network architecture for the
         business solution.

30   4.   (currently amended)   The [[tool]] computer program product as described in
         claim 1, wherein the ~~means~~ instructions (g) ~~comprises~~ comprise instructions for
         causing the computer to:

- compute ~~means for computing~~ the business parameters for the business solutions over a pre-determined study period; and

- determine ~~means for determining~~ business parameters which comprise at least one of: capital expenditure (CAPEX), wherein the CAPEX comprises a network architecture cost, taxes, interests, and depreciation and amortization (D/A) expenses; operational expenditure (OPEX), wherein the OPEX comprises a management processes cost, a leasing cost, and sales, general and administration (SG&A); revenue; capacity; return on investment (ROI); earnings before interest, taxes, and depreciation and amortization (EBITDA); earnings before interest and taxes (EBIT); the OPEX as percentage of the revenue; and total expenditure as percentage of the revenue, wherein the total expenditure comprises the CAPEX and the OPEX.

5.   (currently amended)   The [[tool]] computer program product as described in claim 3, wherein the ~~means~~ instructions (b) comprise instructions for causing the computer to engineer ~~comprises means for engineering~~ the network architecture for the business solution.

6.   (currently amended)   The [[tool]] computer program product as described in claim 3, wherein the ~~means~~ instructions (d) comprise instructions for causing the computer to engineer ~~comprises means for engineering~~ the network management processes and the service and customer management processes for managing the network architecture for the business solution.

7.   (currently amended)   The [[tool]] computer program product as described in claim 4, wherein the ~~means~~ instructions (h) comprise instructions for causing the computer to display ~~comprises means for displaying~~ the business parameters in tables and graphical charts for the business solutions over the pre-determined study period.

8.   (currently amended)   The [[tool]] computer program product as described in claim 5, wherein the ~~means~~ instructions (c) comprise instructions for causing the computer to determine ~~comprises means for determining~~ a network architecture cost and a leasing cost for the network architecture for the business solution.

9.   (currently amended)   The [[tool]] computer program product as described in claim 8, wherein the ~~means~~ instructions (f) comprise instructions for causing the computer to validate and calibrate ~~comprises means for validating and calibrating~~ the data and options; the network architecture cost; and the leasing cost for said network architecture for the business solution.

10.   (currently amended)   The [[tool]] computer program product as described in claim 8, wherein the ~~means~~ instructions (b) further comprise instructions for causing the computer to determine ~~comprising means for determining~~ an owned network elements (NEs) count; a leased NEs count; an owned customer premise equipment (CPE) count; a leased CPE count; an owned links count; a leased links count; and a leased ports count for said network architecture; and wherein said network architecture ~~having~~ has NEs, CPE, and links from the same or different equipment suppliers.

11.   (currently amended)   The [[tool]] computer program product as described in claim 10, wherein the ~~means~~ instructions (c) further comprise instructions for causing the computer to determine ~~comprising means for determining~~ a price per network element (NE), a footprint per NE cost, a power consumption per NE cost; a price per CPE, a footprint per CPE cost, and a power consumption per CPE cost; and a price per link and a link transmission rate.

12.   (currently amended)   The [[tool]] computer program product as described in claim 11, wherein the ~~means~~ instructions for determining the network architecture cost comprise instructions for causing the computer to compute ~~comprises a means for computing~~ a total owned NEs cost; a total owned CPE cost; and a total owned links cost for said network architecture for the business

solution; and wherein the ~~means~~ instructions for determining the leasing cost

comprise instructions for causing the computer to compute ~~comprises a means~~

~~for computing~~ a total footprints cost and a total power consumptions cost for

said owned NEs and CPE.

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13.   (currently amended)   The [[tool]] computer program product as described in

claim 10, wherein the ~~means~~ instructions (c) further comprise instructions for

causing the computer to determine ~~comprising means for determining~~ a leased

per NE cost, a footprint per NE cost, and a power consumption per NE cost; a

10   leased per CPE cost, a footprint per CPE cost, and a power consumption per

CPE cost; a leased per link cost; a leased link per unit length cost, a unit length

per link count, and a link transmission rate; and a leased per port cost.

14.   (currently amended)   The [[tool]] computer program product as described in

15   claim 13, wherein the ~~means~~ instructions for determining the leasing cost

comprise instructions for causing the computer to compute ~~comprises a means~~

~~for computing~~ a total leased NEs cost; a total leased CPE cost; a total footprints

cost and a total power consumptions cost for said leased NEs and CPE; a total

leased links cost; a total leased links per unit length cost; and a total leased ports

20   cost for said network architecture for the business solution.

15.   (currently amended)   The [[tool]] computer program product as described in

claim 6, wherein the ~~means~~ instructions (e) ~~comprises~~ comprise instructions for

causing the computer to:

25   - determine ~~means for determining~~ a network management processes cost,

wherein the ~~means for determining the~~ network management processes

cost comprises ~~means for determining~~ costs for inside plant maintenance,

outside plant maintenance, network engineering, network provisioning,

installation, testing, and repairs for each network element in the network

30   architecture for the business solution;

- determine ~~means for determining~~ a service and customer management

processes cost, wherein the ~~means for determining the~~ service and

customer management processes cost comprises ~~means for determining~~ costs for customer relationship management (CRM), work order management (WOM), network inventory management (NIM), service activation and provisioning (SAP), fault management (FM), performance management (PM), accounting and billing, and security management for each link in the network architecture for the business solution; and

- determine ~~means for determining~~ a management processes cost which comprises the network management processes cost and the service and customer management processes cost ~~means~~.

16. (currently amended) The [[tool]] computer program product as described in claim 15, wherein the ~~means~~ instructions for engineering the network management processes comprise instructions for causing the computer to engineer ~~comprises a means for engineering~~ at least one of the following processes: inside plant maintenance; outside plant maintenance; network engineering; network provisioning; installation; testing; and repairs.

17. (currently amended) The [[tool]] computer program product as described in claim 16, further comprises instructions for causing the computer to determine ~~comprising means for determining~~ the network management processes cost for said network management processes for at least one of: a manual operations mode; a mechanized operations mode; and a manual and mechanized operations mode.

18. (currently amended) The [[tool]] computer program product as described in claim 15, wherein the ~~means~~ instructions for engineering the service and customer management processes comprise instructions for causing the computer to engineer ~~comprises a means for engineering~~ at least one of the following processes: customer relationship management (CRM); work order management (WOM); network inventory management (NIM); service activation and provisioning (SAP); fault management (FM); performance management (PM); accounting and billing; and security management.

19. (currently amended)   The [[tool]] computer program product as described in
     claim 18, further comprises instructions for causing the computer to determine
     comprising means for determining costs of the customer relationship
5   management (CRM); the work order management (WOM); the network
     inventory management (NIM); the service activation and provisioning (SAP);
     the fault management (FM); the performance management (PM); the accounting
     and billing; and the security management for at least one of: a manual operations
     mode; a mechanized operations mode; and a manual and mechanized operations
10   mode.

20. (canceled)

21. (currently amended)   The [[tool]] computer program product as described in
15   claim 19, wherein the means instructions for determining the cost of the
     customer relationship management (CRM) comprise instructions for causing the
     computer to determine comprises means for determining costs for at least one
     of: a work order entry and validation process; a service delivery and work order
     processing process; a customer care process; a trouble ticketing process; and a
20   service assurance and performance reporting process.

22. (currently amended)   The [[tool]] computer program product as described in
     claim 19, wherein the means instructions for determining the cost of the work
     order management (WOM) comprise instructions for causing the computer to
25   determine comprises means for determining costs for at least one of: a work
     order processing process; a client management process; a report management
     process; and an administration management process.

23. (currently amended)   The [[tool]] computer program product as described in
30   claim 19, wherein the means instructions for determining the cost of the network
     inventory management (NIM) comprise instructions for causing the computer to
     determine comprises means for determining costs for at least one of: a customer,

services, and resources association management process; an equipment

management process; and a network management process.

24.   (currently amended)   The [[tool]] computer program product as described in

claim 19, wherein the ~~means~~ instructions for determining the cost of the service

activation and provisioning (SAP) comprise instructions for causing the

computer to determine ~~comprises means for determining~~ costs for at least one

of: a create a new service process; a customer association process; a process for

aligning and synchronizing with billing, maintenance, and performance; and a

resource discovery and database quires process.

25.   (currently amended)   The [[tool]] computer program product as described in

claim 19, wherein the ~~means~~ instructions for determining the cost of the fault

management (FM) comprise instructions for causing the computer to determine

~~comprises means for determining~~ costs for at least one of: a trouble ticketing

process; an isolate problem process; and an analysis and resolution for service

logic agreement (SLA) process.

26.   (currently amended)   The [[tool]] computer program product as described in

claim 19, wherein the ~~means~~ instructions for determining the cost of the

performance management (PM) comprise instructions for causing the computer

to determine ~~comprises means for determining~~ costs for at least one of: a collect

performance data process; a generate performance reports process; and a

validate service logic agreement (SLA) process.

27.   (canceled)

28.   (canceled)

29.   (canceled)

30.   (canceled)

31.   (currently amended)   A method for assessing business solutions comprising
       alternative network architectures and management processes for a
       telecommunications network, the method comprising the steps of <u>instructing a</u>

5   <u>computer to</u>:

       (n)   <u>receive</u> ~~inputting~~ data and options for plurality of network architectures,
              network management processes, and service and customer management
              processes ~~by an analyst~~;

       (m)   <u>engineer</u> ~~engineering~~ the plurality of network architectures based on the

10   data and options of (n);

       (u)   <u>determine</u> ~~determining~~ suppliers' equipment costs for said plurality of
              network architectures;

       (v)   <u>engineer</u> ~~engineering~~ the network management processes and the service
              and customer management processes, based on the data and options of (n),

15   for managing said plurality of network architectures;

       (w)   <u>determine</u> ~~determining~~ suppliers' management processes costs for the
              network management processes and the service and customer management
              processes;

       (x)   <u>determine</u> ~~determining~~, based on the costs of the plurality of network

20   architectures and the network management processes and the service and
              customer management processes, business parameters for the business
              solutions;

       (y)   <u>validate and calibrate</u> ~~validating and calibrating~~ the data and options and
              the costs for the plurality of network architectures and the network

25   management processes and the service and customer management
              processes; and

       (z)   <u>store and display</u> ~~storing or displaying~~ the business parameters for the
              business solutions for the telecommunications network.

30 32.   (currently amended)   The method as described in claim 31, wherein the step
       (x) comprises <u>steps of instructing the computer to</u>:

- compute ~~computing~~ the business parameters for the business solutions over a pre-determined study period; and

- determine ~~determining~~ at least one of the business parameters which comprise: capital expenditure (CAPEX), wherein the CAPEX comprises a network architecture cost, taxes, interests, and depreciation and amortization (D/A) expenses; operational expenditure (OPEX), wherein the OPEX comprises a management processes cost, a leasing cost, and sales, general and administration (SG&A); revenue; capacity; return on investment (ROI); earnings before interest, taxes, and depreciation and amortization (EBITDA); earnings before interest and taxes (EBIT); the OPEX as percentage of the revenue; and total expenditure as percentage of the revenue, wherein the total expenditure comprises the CAPEX and the OPEX.

33. (currently amended)   The method as described in claim 31, wherein the step (n) comprises steps of instructing the computer to:
- receive ~~inputting~~ traffic data, customer data, and labor and financial data;
- receive ~~inputting~~ technology options which comprise at least one of: time division multiplexing (TDM), asynchronous transfer mode (ATM), frame relay (FR), Internet protocol (IP), virtual private network (VPN), multi protocol label switching (MPLS), and optical Ethernet including fiber, synchronous optical network (SONET), resilience packet ring (RPR), and dense wavelength division multiplexing (DWDM) for a network architecture for a business solution;
- receive ~~inputting~~ options for the network management processes which comprise at least one of: inside plant maintenance, outside plant maintenance, network engineering, network provisioning, installation, testing, and repairs for managing the network architecture for the business solution; and
- receive ~~inputting~~ options for the service and customer management processes which comprise at least one of: customer relationship management (CRM), work order management (WOM), network inventory management

(NIM), service activation and provisioning (SAP), fault management (FM),

performance management (PM), accounting and billing, and security

management for managing the network architecture for the business

solution.

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34.   (currently amended)   The method as described in claim 33, wherein the step

(u) comprises steps of instructing the computer to determine determining a

network architecture cost and a leasing cost for the network architecture for the

business solution.

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35.   (currently amended)   The method as described in claim 34, wherein the step

(m) comprises steps of instructing the computer to engineer engineering the

network architecture for the business solution.

15   36.   (currently amended)   The method as described in claim 33, wherein the step

(v) comprises steps of instructing the computer to:

-   engineer engineering network management processes which comprise

engineering at least one of the following processes: inside plant

maintenance, outside plant maintenance, network engineering, network

20   provisioning, installation, testing, and repairs; and

-   engineer engineering the service and customer management processes which

comprise comprises engineering at least one of the following processes:

customer relationship management (CRM), work order management

(WOM), network inventory management (NIM), service activation and

25   provisioning (SAP), fault management (FM), performance management

(PM), accounting and billing, and security management.

37.   (currently amended)   The method as described in claim 36, wherein the step

(w) comprises steps of instructing the computer to:

30   -   determine determining a network management processes cost for the

network management processes, which comprises determining costs of

inside plant maintenance, outside plant maintenance, network engineering,

network provisioning, installation, testing, and repairs for each network

element in the network architecture for the business solution for at least one

of: a manual operations mode, a mechanized operations mode, and a manual

and mechanized operations mode;

5   -   determine ~~determining~~ a service and customer management processes cost

for the service and customer management processes, which comprises

determining costs of customer relationship management (CRM), work order

management (WOM), network inventory management (NIM), service

activation and provisioning (SAP), fault management (FM), performance

10   management (PM), accounting and billing, and security management for

each link in the network architecture for the business solution for at least one

of: a manual operations mode, a mechanized operations mode, and a manual

and mechanized operations mode; and

-    determine ~~determining~~ a management processes cost ~~comprising~~ which

15   comprises the network management processes cost and the service and

customer management processes cost.

38.   (currently amended)   The method as described in claim 32, wherein the step

(z) comprises steps of instructing the computer to tabulate ~~a step of tabulating~~

20   and graphically chart ~~charting~~ the business parameters for said business

solutions over said pre-determined study period.

39.   (canceled).